

CLAIMS

87. (Currently amended) A method of messaging over a network between patients
5 and healthcare providers, comprising steps of:

Initiating a query message by a patient from a patient-operated computer using a
first medical messaging wizard;

generating a problem-specific, patient-specific electronic form for said patient to
complete by said first medical messaging wizard from a problem-related database and
10 ~~said patient's a~~ medical profile for said patient, wherein a form completed by said
patient comprises a query message;

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sending said query message to a workflow engine at a separate network location
from said patient-operated computer;

attaching said patient's medical profile to said query message by said workflow
15 engine;

routing said query message with said attached medical profile to a physician-
operated computer at a network location separate from said patient-operated computer
and said workflow engine;

using a second medical messaging wizard from said physician-operated
20 computer, viewing said query message by a first physician, generating a response
message and directing said response message to said patient;

wherein said patient-operated computer and said physician-operated computer are intermittently connected to said network, and wherein exchange of messages is asynchronous.

- 5 88. (Previously added) The method of Claim 87, further comprising steps of:
appending a billing to said response; and
generating a patient response log entry in said medical profile of said patient at
said workflow engine.

- 10 89. (Previously added) The method of Claim 88, further comprising steps of:
encrypting said query message at said patient-operated computer;
decrypting said encrypted query message at said workflow engine;
encrypting said decrypted query message by said workflow engine;
decrypting said query message from said workflow engine at said physician-
15 operated computer;
encrypting said response at said physician-operated computer; and
any of the steps of:
decrypting said encrypted response message at said workflow engine;
and
20 decrypting said encrypted response message at said patient-operated
computer.

90. (Previously added) The method of Claim 87, further comprising steps of:

routing said query message with said attached medical profile to a physician extender using a separate computer at a separate network location;

using a third medical message wizard:

viewing said query message by said physician extender;

5 generating a proposed response message to said query message;

attaching said proposed response message to said query message;

routing said query message with said proposed response message to said first physician; and

10 generating said response message by said first physician using said medical message wizard based on said proposed response message.

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91. (Previously added) The method of Claim 90, wherein said physician extender comprises either of an administrator and a physician assistant.

15 92. (Previously added) The method of Claim 87, further comprising a step of: embedding a prescription in said response message.

93. (Previously added) The method of Claim 92, further comprising steps of:
selecting a pharmacy by said patient; and
20 directing a message to said pharmacy by said patient ordering said prescription.

94. (Previously added) The method of Claim 90, wherein said physician extender comprises a nurse, said step of generating a proposed response to said query comprising a step of:

embedding a proposed prescription refill in said proposed response.

95. (Previously added) The method of Claim 94, further comprising steps of:
reviewing said proposed prescription refill by said first physician; and
5 any of the steps of:

approving said proposed prescription refill;
revising said proposed prescription refill;
deleting said proposed prescription refill; and
embedding a second prescription.

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96. (Previously added) The method of Claim 90, wherein said third message wizard
is implemented as a computer program residing in computer readable media accessible
by said physician extender operating said computer.

- 15 97. (Previously added) The method of Claim 88, further comprising a step of
generating a billing report from said medical profile of said patient:

98. (Previously added) The method of Claim 97, said network including a billing
system accessing said network at a billing system address on said network, and further
20 comprising steps of:

sending said billing report from said medical profile of said patient to said
billing system address; and
billing said patient from said billing report.

99. (Previously added) The method of Claim 98, wherein billing said patient comprises either of:

generating a personal bill for said patient; and

generating at least one insurance bill for said patient to a corresponding

5 insurance provider.

100. (Previously added) The method of Claim 87, wherein generating a response to said query message further comprises;

generating a first-physician-second opinion request message;

10 sending said first-physician-second opinion request message to a second physician at a corresponding second physician address;

viewing said second opinion request message by said second physician;

generating a second opinion message by said second physician; and

15 sending said second opinion message to said first physician.

101. (Previously added) The method of Claim 87, further comprising a step of maintaining a collection of patient response templates, wherein said first physician invokes one of said collection of templates in responding to said query message.

20 102. (Previously added) The method of Claim 87, further comprising steps of:

maintaining a routing table including at least one routing directive to said first physician;

wherein sending said patient medical query message to a first physician with said corresponding physician address further comprises;

examining said routing table based upon said patient medical query message to find a first of said routing directives to said first physician compatible with said patient medical query message;

finding said first routing directive to said first physician compatible with said patient medical query message.

103. (Previously added) The method of Claim 87, wherein said messaging protocol supports email.

104. (Previously added) The method of Claim 103, wherein said messaging protocol supports TCP/IP.

105. (Previously added) The method of Claim 104, wherein said messaging protocol supports the World Wide Web.

106. (Previously added) The method of Claim 87, wherein said second message wizard is implemented as a computer program residing on a computer readable medium accessible by said physician-operated computer.

107. (Previously added) The method of Claim 87, wherein said first message wizard is implemented as a computer program residing on a computer readable medium accessible by said patient operated computer.

108. (Previously added) The method of Claim 87, wherein said workflow engine resides on at least one server capable of accessing said network to receive and send messages; and wherein said workflow engine is implemented as a program system wherein the various stated operations are implemented as component programs which
5 may be concurrently operating.

109. (Previously added) The method of Claim 108, wherein said workflow engine resides on exactly one server capable of accessing said network to receive and send messages.

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110. (Previously added) A computer program residing on a computer readable medium accessible by a workflow engine computer system communicating with a network, said network further communicating with at least one patient operated computer and further communicating with at least one physician operated computer
15 comprising;

code for receiving a query message from a patient via said patient operated computer and generating a patient message log entry in a medical profile of said first patient;

code for attaching said patient's medical profile to said query message by said
20 workflow engine; and

code for receiving a patient response message from a first physician based upon said query message from said first patient and generating a physician response log entry in said medical profile of said first patient.

111. (Previously added) The computer program of Claim 110, further comprising code for determining said first physician based upon said query message received from said patient.

- 5 112. (Previously added) The computer program of Claim 110, further comprising:
- code for determining if said received patient response message contains an embedded prescription;
- code for receiving a patient prescription order message from said first patient;
- and
- 10 code for generating a prescription order message based upon said received patient prescription order message and said received patient response message and for sending said prescription order message to a first pharmacy.

113. (Previously added) The computer program of Claim 110, wherein said network

15 further communicates with at least one physician extender operated computer; and

further comprising code for generating a second query message based upon said received query message from said patient and sending said second query message to a first of said physician extender operated computer.

- 20 114. (Previously added) The computer program of Claim 113, wherein said code for generating a second query message based upon said received query message from said patient and sending said second patient medical query message to a first of said physician extenders further comprises code for determining said first physician extender based upon said received query message from said first patient.

115. (Previously added) The computer program of Claim 114, further comprising code for receiving a proposed patient response message from said first physician extender via said physician extender operated computer and generating a proposed first
5 response log entry from said received proposed first patient response message in said medical profile of said patient.

116. (Previously added) The computer program of Claim 114, wherein said code for generating a second patient medical query message based upon said received
10 educated query message from said first patient and sending said second patient medical query message to a first of said physician extenders further comprises code for:

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determining a routing chain comprised of at least one successor physician
extender of a physician extender routing collection comprising each of said physician
extenders and embedding said routing chain into said second patient medical query
15 message;

wherein said proposed patient response is routed from said first physician
extender to each said successor physician extender belonging to said routing chain until
each said successor physician extender has responded to said proposed patient
response; and

20 wherein after each successor physician extender has responded to said
proposed patient response to create a collectively proposed patient response message,
said collectively patient response message is routed to said first physician.

117. (Previously added) The computer program of Claim 110, further comprising code for generating a routing tree comprised of at least one routing arrow based upon said received query, each of said routing arrows contains a source and a destination belonging to a tree routing collection comprised of at least each of said physicians, and
5 each of said routing arrows connecting to form a chain containing a final destination of said first physician; and

code for generating a source patient query message for each said source of each said routing arrow of said routing tree containing said chain of said routing arrow and sending said source patient query message to said source of said routing arrow of said
10 routing tree.

118. (Previously added) The computer program of Claim 117, further comprising code for receiving a partial patient response message from each said source of each said routing arrow and generating a partial patient response log entry in said medical profile
15 of said first patient.
